

ABSTRACT

A bit rate-independent optical receiver ensures transparency with respect to changes of the transmission format and its associated bit rate in relation to an optical communications system. The optical receiver includes an opto-electric converter for converting an input optical signal into an electric signal, an amplifier circuit for amplifying the electrical signal, a bit rate-sensing circuit for generating a sensing signal with a voltage level determined on the basis of the bit rate of the electrical signal, a bit rate-recognition circuit for generating a recognition signal further amplified from the sensing signal, and a clock/data recovery circuit for reproducing a clock signal and data from the amplified electrical signal in accordance with a control signal. A controller determines a bit rate corresponding to the voltage level of the recognition signal by referring to a look-up table of the bit rate to the voltage level and provides the clock/data recovery circuit with the control signal representative of the bit rate.